MAIL STOP APPEAL BRIEF-PATENTS
PATENT
0512-1311

IN THE U.S. PATENT AND TRADEMARK OFFICE

In re application of

Marc LIMPENS Conf. 1474

Application No. 10/560,235 Group 1794

Filed March 24, 2006 Examiner Ellen S Wood

METHOD FOR CONTINUOUSLY PRODUCING A COATED FABRIC JACKET AND A COATED FABRIC JACKET PRODUCED BY SAID METHOD

APPEAL BRIEF

MAIL STOP APPEAL BRIEF-PATENTS
Assistant Commissioner for Patents August 6, 2010
P.O. Box 1450
Alexandria, VA 22313-1450

MAY IT PLEASE YOUR HONORS:

1. REAL PARTY IN INTEREST

The real party in interest in this appeal is:

PENNEL ET FLIPO, 384 RUE D'ALGER, 59100 ROUBAIX, FRANCE.

2. Related appeals and interferences

None.

3. Status of claims

Claims 16-20 have been canceled. Claims 1-15 and 21-24 are pending in the application and stand rejected, from which this appeal is taken.

4. Status of amendments

No amendment has been filed subsequent to the final rejection mailed December 9, 2009. The claims at issue are thus those set forth in the Amendment filed August 18, 2009.

5. Summary of claimed subject matter

Independent claim 1: As is set forth in independent claim 1, the present invention pertains to a method for continuously producing a coated fabric jacket (1) which includes at least one gas-tight tube (2) and which is formed from two superimposed sheets (10; 20) of coated fabric (11; 21) formed by warp threads (11a; 21a) and weft threads (11b; 21b),

or a coated non-woven fabric, the method including (Page 2, lines 26-30):

- cutting from at least one other sheet of fabric including a coating on one face, at least two strips (15; 25) of fabric (16; 26) formed by warp threads (16a; 26a) and weft threads (16b; 26b), each strip having a specific width and a length which is substantially equal to a length of the tube (2) to be produced; (Page 2, line 31 - Page 3, line 2)

- depositing an adhesive material (18; 28) on a face of each of the strips (15; 25) opposite that covered with the coating (17; 27) (Page 3, lines 3 - 4);

- folding each of the strips (15; 25) in two by folding over two half-faces covered with the adhesive material (18; 28) one onto the other in order to retain the strips (15; 25) in the folded state (Page 3, lines 5-7);

- longitudinally fixing each of the folded strips (15; 25) to the first sheet (10) by positioning a separation line (15a; 25a) of the half-faces of each of the strips (15; 25) facing each other in order to determine at least one zone for forming the tube (2); (Page 3, lines 8-11)

- depositing an anti-adhesive agent (30) in the zone and on the face of the first sheet (10) contained between the two adjacent strips (15; 25); (Page 3, lines 12-14)

- pressing the second sheet (20) on the first sheet (10) and the two sheets (10; 20) are joined together by adhesively-

bonding the sheets (10; 20) in connection zones which are not covered with the anti-adhesive agent (30) (Page 3, lines 15-18); and

- inflating the tube (2) in order to deploy the two half-faces of each of the strips (15; 25) which forms, at an inner side of the tube (2) in a region of each joint of the two sheets (10;20), an angled connection which ensures the mechanical properties and the sealing (Page 3, lines 19-23).

Independent claim 22: As is set forth in independent claim 22, the present invention pertains to a method for continuously producing a coated fabric jacket (1), the method including (Page 2, lines 26-27):

- cutting from at least one sheet of fabric including a coating on one face, at least two strips (15; 25) of fabric (16; 26) formed by warp threads (16a; 26a) and weft threads (16b; 26b), each strip having a specific width and a length which is substantially equal to a length of at least one tube (2) to be produced (Page 2, line 31 - Page 3, line 2);

- depositing an adhesive material (18; 28) on a face of each of the strips (15; 25) opposite that covered with the coating (17; 27) (Page 3, lines 3-4);

- folding each of the strips (15; 25) in two by folding over two half-faces covered with the adhesive material (18; 28) one onto the other in order to retain the strips (15; 25) in the folded state (Page 3, lines 5-7);

- longitudinally fixing each of the folded strips (15; 25) to a first sheet (10) by positioning a separation line (15a; 25a) of the half-faces of each of the strips (15; 25) facing each other in order to determine at least one zone for forming the tube (2) (Page 3, lines 8-11);

- depositing an anti-adhesive agent (30) in the zone and on the face of the first sheet (10) contained between the two adjacent strips (15; 25) (Page 3, lines 12-14);

- pressing a second sheet (20) on the first sheet (10) and the two superimposed sheets (10; 20) are joined together by adhesively-bonding the sheets (10; 20) in connection zones which are not covered with the anti-adhesive agent (30)(Page 3, lines 15-18); and

- inflating the tube (2) in order to deploy two half-faces of each of the strips (15; 25) which forms, at an inner side of the tube (2) in a region of each joint of the two sheets (10;20), an angled connection which ensures the mechanical properties and the sealing (Page 3, lines 19-23),

wherein the coated fabric jacket (1) is continually produced, and the tube (2) is a gas tight tube which is formed from the two superimposed sheets (10; 20) which are formed of coated fabric (11; 21) formed by warp threads (11a; 21a) and weft threads (11b; 21b), or a coated non-woven fabric (Page 2, lines 26-30).

6. Grounds of rejection to be reviewed on appeal

The **sole** ground for review on appeal is whether claims 1-15 and 21-24 are sufficiently unpatentable over HARTEL et al. (US Patent No. 4,846,917) in order to support an allegation of unpatentability under 35 U.S.C. 103(a).

7. Argument

7.0 Summary of Argument

HARTEL et al. do not teach or infer tubes. Instead HARTEL et al. teach away from the present invention by requiring a structure with parallel surfaces. The manufacturing process of HARTEL et al. cannot be continuous.

7.1 First and Sole Ground - HARTEL et al.

The present invention pertains to a method for continuously forming a coated fabric jacket (1) from at least one gas-tight tube (2), as can be seen for example in Figure 1 of the application, which is reproduced below.

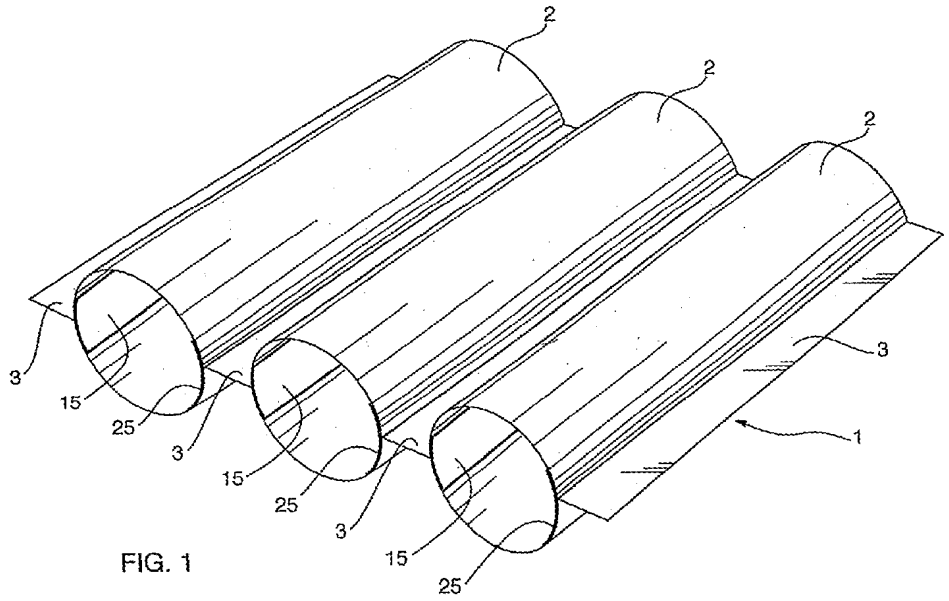


FIG. 1

The method of the present invention is for continuously producing a coated fabric jacket from tubes, such as is set forth in the process steps of the independent claims. As can be clearly seen, the tubes (2) have a circular profile, i.e., are cylinders.

The present invention continuously produces coated fabric jackets for a number of applications, for example, for forming ***inflatable tubes*** having a pneumatic structure, such as life rafts, or for forming beams or inflatable structures, or for producing, for example floating anti-pollution barriers.

The continuous method of the present invention allows the production of a coated fabric jacket having tubular zones forming tubes and n+1 connection zones.

HARTEL et al. pertain to forming an ***inflatable hollow body*** from a double cloth. The final Official Action of December 9, 2009 refers to Figures 1 and 2 of HARTEL et al., which are reproduced below.

Fig.1

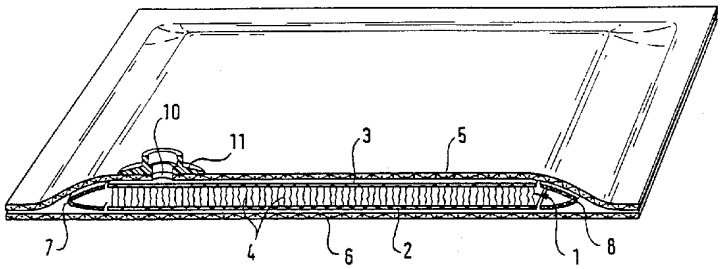
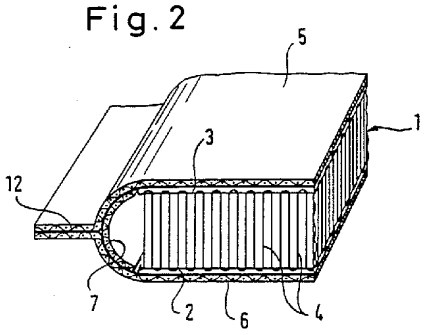


Fig.2



In HARTEL et al. the double cloth or textile fabric 1 is used for producing a hollow body having two plies or sheets 2 and 3 which are kept apart by yarns or threads 4 extending at right angles to the piles. Angle braces 7 and 8 are put on the sides.

At column 3, lines 43-46 HARTEL et al. teaches: "*The advantages of this structure is that it permits the fabrication of parts having* ***parallel surfaces*** *which are* ***spaced apart from one another by a constant distance.***" By this, HARTEL et al.'s goal is to form an essentially rectangular structure (for bottoms or side walls of boats or mattresses, column 3, lines 46-48). This teaches away from the essentially circular tubes of the present invention.

A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). A *prima facie* case of obviousness may also be rebutted by showing that the art, in any material respect, teaches away from the invention. *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997).

The method of HARTEL et al. (described at column 2, line 57 *et seq.*) is clearly not continuous.

HARTEL et al. start by pre-fabricating the multi-layers plies by briefly pre-pressing, and then evacuating the hollow body to cause the coated layers to be fused into one another and thus be strongly bonded together. After that, the hollow body is vulcanized to reinforce the bonding.

In the Response to Arguments at paragraph 6 of the final Office Action, the Examiner asserts that one tube is formed from the continuous production of forming a coated fabric jacket and thus discloses a method for continuously producing a coated fabric jacket.

However, sheet 1 of HARTEL et al. is pre-cut into the dimensions of the final product of the inflatable hollow body (column 2, lines 62-64). HARTEL et al. thus cannot continuously form a structure, especially one containing at least one or more tubes (which HARTEL et al. teaches away from), such as is shown in Figure 1 of the present application.

Further, in column 3, HARTEL et al. merely disclose a pre-fabrication process in which the rubber covering layers are not strongly bonded together. The strong bond between the layers happens while empting the interior air of the double cloth.

That is, HARTEL et al. first manufacture an individual and single space during the pre-fabrication process, and then adhere each layers by evacuating the single space.

In contrast, the present invention has one or more than ***one tube*** and thus cannot be evacuated. At page 9, lines 28-30, the specification of the present invention discusses having the operation carried out continuously on a machine having one or more rollers to press and adhesive the layers.

Therefore, there is no teaching or inference in HARTEL et al. of forming a structure containing at least one or more tubes, such as is shown in Figure 1 of the application. HARTEL et al. teaches away from tubes. The process of HARTEL et al. is not continuous.

One of ordinary skill and creativity would thus fail to produce a claimed embodiment of the present invention from a knowledge of HARTEL et al. A *prima facie* case of unpatentability has thus not been made.

Withdrawal of this rejection is therefore proper.

8. Conclusion

The Appellant has demonstrated that the Examiner has failed to successfully allege that the rejected claims are *prima facie* unpatentable. It is clear that the inventive compositions for a method for ***continuously*** producing a coated fabric jacket from ***tubes***. For the reasons advanced above, it is respectfully submitted that all the rejected claims in this application are allowable. Thus, favorable reconsideration and reversal of the rejection under 35 USC §103, by the Honorable Board of Patent Appeals and Interferences, are respectfully solicited.

Please charge the requisite Appeal Brief fee in the amount of $270 to our credit card.

The Commissioner is hereby authorized in this, concurrent, and future submissions, to charge any deficiency or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON

/ Robert E. Goozner/

Robert E. Goozner, Reg.No.42,593
Attorney for Appellant
209 Madison Street, Suite 500
Alexandria, VA 22314
Telephone (703) 521-2297
Telefax (703) 685-0573
(703) 979-4709

REG/hc

9. Claims Appendix

1. A method for continuously producing a coated fabric jacket (1) which comprises at least one gas-tight tube (2) and which is formed from two superimposed sheets (10; 20) of coated fabric (11; 21) formed by warp threads (11a; 21a) and weft threads (11b; 21b), or a coated non-woven fabric, the method comprising:

- cutting from at least one other sheet of fabric comprising a coating on one face, at least two strips (15; 25) of fabric (16; 26) formed by warp threads (16a; 26a) and weft threads (16b; 26b), each strip having a specific width and a length which is substantially equal to a length of the tube (2) to be produced;

- depositing an adhesive material (18; 28) on a face of each of the strips (15; 25) opposite that covered with the coating (17; 27);

- folding each of the strips (15; 25) in two by folding over two half-faces covered with the adhesive material (18; 28) one onto the other in order to retain the strips (15; 25) in the folded state;

- longitudinally fixing each of the folded strips (15; 25) to the first sheet (10) by positioning a separation line (15a; 25a) of the half-faces of each of the strips (15; 25) facing each other in order to determine at least one zone for forming the tube (2);

- depositing an anti-adhesive agent (30) in the zone and on the face of the first sheet (10) contained between the two adjacent strips (15; 25);

- pressing the second sheet (20) on the first sheet (10) and the two sheets (10; 20) are joined together by adhesively-bonding the sheets (10; 20) in connection zones which are not covered with the anti-adhesive agent (30); and

- inflating the tube (2) in order to deploy the two half-faces of each of the strips (15; 25) which forms, at an inner side of the tube (2) in a region of each joint of the two sheets (10;20), an angled connection which ensures the mechanical properties and the sealing.

2. The method according to claim 1, wherein the fabric (11; 21) of each sheet (10; 20) is covered with the coating (12; 22) on one face.

3. The method according to claim 1, wherein the fabric (11; 21) of each sheet (10;20) is covered with the coating (12; 22) on the two faces.

4. The method according to claim 1, wherein the coating (12; 22, 16; 26) is constituted by at least one layer of rubber.

5. The method according to claim 1, wherein the coating (12; 22, 16; 26) is constituted by at least one layer of plastics material.

6. The method according to claim 1, wherein the fixing of each folded strip (15; 25) to the first sheet (10) is brought about by applying pressure and by heating each folded strip.

7. The method according to claim 1, wherein the fixing of each folded strip (15; 25) to the first sheet (10) is brought about by adhesively-bonding each folded strip to the first sheet.

8. The method according to claim 1, wherein the anti-adhesive agent (30) is constituted by a product which is incompatible with the coating (12; 22) of the sheets (10; 20).

9. The method according to claim 1, wherein the adhesion of the two sheets (10; 20) in the zones which are not covered with anti-adhesive agent (30) is brought about by pressing and simultaneously heating the sheets.

10. The method according to claim 1, wherein the warp threads (11a; 21a) of the fabrics (11; 21) of the two

sheets (10; 20) extend parallel with the longitudinal axis of the corresponding sheet (10; 20) and the weft threads (11b; 21b) extend perpendicularly relative to the warp threads (11a; 21a).

11. The method according to claim 1, wherein the warp threads (16a; 26a) of the fabrics (16; 26) of the two strips (15; 25) extend parallel with the longitudinal axis of the corresponding strip (15; 25) and the weft threads (16b; 26b) extend perpendicularly relative to the warp threads (16a; 26a).

12. The method according to claim 1, wherein after inflation the tube (2) is rectilinear.

13. The method according to claim 1, wherein the warp threads (11a) of the fabric (11)of the first sheet (10) are inclined relative to the longitudinal axis of that first sheet (10) and the weft threads (11b) of the first sheet (10) extend perpendicularly relative to the warp threads (11a), and in that after the second sheet (20) is pressed on the first sheet (10), the warp threads (21a) of the fabric (21) of the second sheet (20) are inclined relative to the longitudinal axis of that second sheet (20) in a direction counter to the direction of inclination of the warp threads (11a) of the

first sheet (10), and the weft threads (21b) of the fabric (21) of the second sheet (20) extend perpendicularly relative to the warp threads (21a) of that second sheet (20).

14. The method according to claim 1, wherein the warp threads (16a; 26a) and the weft threads (16b; 26b) of the fabrics (16; 26) of the two strips (15; 25) are arranged in an identical manner to the warp threads (11a) and the weft threads (11b) of the first sheet (10), before the strips (15; 25) are folded.

15. The method according to claim 1, wherein after inflation, the tube (2) has the form of a torus.

21. The method according to claim 8, wherein the product which is incompatible with the coating (12; 22) of the sheets (10;20) is an infusible film, a powder or a dispersion, or a solution of anti-adhesive agent.

22. A method for continuously producing a coated fabric jacket (1), the method comprising:

- cutting from at least one sheet of fabric comprising a coating on one face, at least two strips (15; 25) of fabric (16; 26) formed by warp threads (16a; 26a) and weft threads (16b; 26b), each strip having a specific width and a

length which is substantially equal to a length of at least one tube (2) to be produced;

- depositing an adhesive material (18; 28) on a face of each of the strips (15; 25) opposite that covered with the coating (17; 27);

- folding each of the strips (15; 25) in two by folding over two half-faces covered with the adhesive material (18; 28) one onto the other in order to retain the strips (15; 25) in the folded state;

- longitudinally fixing each of the folded strips (15; 25) to a first sheet (10) by positioning a separation line (15a; 25a) of the half-faces of each of the strips (15; 25) facing each other in order to determine at least one zone for forming the tube (2);

- depositing an anti-adhesive agent (30) in the zone and on the face of the first sheet (10) contained between the two adjacent strips (15; 25);

- pressing a second sheet (20) on the first sheet (10) and the two superimposed sheets (10; 20) are joined together by adhesively-bonding the sheets (10; 20) in connection zones which are not covered with the anti-adhesive agent (30); and

- inflating the tube (2) in order to deploy two half-faces of each of the strips (15; 25) which forms, at an inner side of the tube (2) in a region of each joint of the

two sheets (10;20), an angled connection which ensures the mechanical properties and the sealing,

wherein the coated fabric jacket (1) is continually produced, and the tube (2) is a gas tight tube which is formed from the two superimposed sheets (10; 20) which are formed of coated fabric (11; 21) formed by warp threads (11a; 21a) and weft threads (11b; 21b), or a coated non-woven fabric.

23. The method according to claim 1, wherein there are a plurality of the tubes.

24. The method according to claim 22, wherein there are a plurality of the tubes.

10. Evidence Appendix

None.

11. Related Proceedings Appendix

None.